

OIPE

ENTERED

DATE: 08/08/2002

RAW SEQUENCE LISTING TIME: 09:33:59 PATENT APPLICATION: US/09/995,791

Input Set : A:\sequence listing.txt Output Set: N:\CRF3\08082002\1995791.raw

3 <110> APPLICANT: Innogenetics N.V. 5 <120> TITLE OF INVENTION: Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use. 8 <130> FILE REFERENCE: 2551-68 10 <140> CURRENT APPLICATION NUMBER: 09/995,791 C--> 12 <141> CURRENT FILING DATE: 2001-11-29 12 <160> NUMBER OF SEQ ID NOS: 122 14 <170> SOFTWARE: PatentIn 3.1 16 <210> SEQ ID NO: 1 18 <211> LENGTH: 21 19 <212> TYPE: DNA 20 <213> ORGANISM: Hepatitis C virus 22 <400> SEQUENCE: 1 24 ggcatgcaag cttaattaat t 21 27 <210> SEQ ID NO: 2 29 <211> LENGTH: 68 30 <212> TYPE: DNA 31 <213> ORGANISM: Hepatitis C virus 33 <400> SEQUENCE: 2 35 ccggggaggc ctgcacgtga tcgagggcag acaccatcac caccatcact aatagttaat 60 37 taactgca 68 40 <210> SEQ ID NO: 3 42 <211> LENGTH: 642 43 <212> TYPE: DNA 44 <213> ORGANISM: Hepatitis C virus 46 <220> FEATURE: 47 <221> NAME/KEY: CDS 48 <222> LOCATION: 1..639 50 <220> FEATURE: 51 <221> NAME/KEY: mat_peptide 52 <222> LOCATION: 1..636 55 <400> SEOUENCE: 3 57 atg ccc ggt tgc tct ttc tct atc ttc ctc ttg gct tta ctg tcc tgt 48 58 Met Pro Gly Cys Ser Phe Ser Ile Phe Leu Leu Ala Leu Leu Ser Cys 5 - 10 61 ctg acc att cca gct tcc gct tat gag gtg cgc aac gtg tcc ggg atg 96 62 Leu Thr Ile Pro Ala Ser Ala Tyr Glu Val Arg Asn Val Ser Gly Met 65 tac cat gtc acg aac gac tgc tcc aac tca agc att gtg tat gag gca 144 66 Tyr His Val Thr Asn Asp Cys Ser Asn Ser Ser Ile Val Tyr Glu Ala 67 35 40 69 gcg gac atg atc atg cac acc ccc ggg tgc gtg ccc tgc gtt cgg gag 192 70 Ala Asp Met Ile Met His Thr Pro Gly Cys Val Pro Cys Val Arg Glu

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78 Arg Asn Ala Ser Val Pro Thr Thr Ile Arg Arg His Val Asp Leu	
79 85 90 95	•
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82 Leu Val Gly Ala Ala Ala Leu Cys Ser Ala Met Tyr Val Gly Asp Leu	
83 100 105 110	
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86 Cys Gly Ser Val Phe Leu Val Ser Gln Leu Phe Thr Ile Ser Pro Arg	
87 115 120 125	
89 cgg cat gag acg gtg cag gac tgc aat tgc tca atc tat ccc ggc cac	432
90 Arg His Glu Thr Val Gln Asp Cys Asn Cys Ser Ile Tyr Pro Gly His	
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94 Ile Thr Gly His Arg Met Ala Trp Asp Met Met Asn Trp Ser Pro	
95 145 150 155 160	
97 aca acg gcc ctg gtg gta tcg cag ctg ctc cgg atc cca caa gct gtc	528
98 Thr Thr Ala Leu Val Val Ser Gln Leu Leu Arg Ile Pro Gln Ala Val	
99 165 170 175	E76
101 gtg gac atg gtg gcg ggg gcc cat tgg gga gtc ctg gcg ggc ctc gcc	576
102 Val Asp Met Val Ala Gly Ala His Trp Gly Val Leu Ala Gly Leu Ala 103 180 185 190	1
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105 tac tat tcc atg gtg ggg aac tgg gct aag gtt ttg att gtg atg cta 106 Tyr Tyr Ser Met Val Gly Asn Trp Ala Lys Val Leu Ile Val Met Leu	624
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138 Arg Asn Ala Ser Val Pro Thr Thr Ile Arg Arg His Val Asp Leu	
139 85 90 95 141 Leu Val Gly Ala Ala Ala Leu Cys Ser Ala Met Tyr Val Gly Asp Leu	

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	Ile		Glv	His	Ara	Met.		Trp	Asp	Met	Met		Asn	Trp	Ser	Pro	
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	Thr	Thr	Ala	Len	Va 1		Ser	Gln	Len	Len		Tle	Pro	Gln	Ala		
154					165		501	0111	Dea	170	*** 9	110		0111	175	V 44.1.	
	Val	Asp	Met	Val		Glv	Ala	His	Trn		Va 1	Len	Δla	Glv		Δla	
157	,	p		180		0 -1			185	011	, 4	пси	2114	190	DC4	ma	
	Tyr	туг	Ser		Val	Glv	Δan	Trn		T.v.c	Val	T.211	Tla		Mat	T.OU	
160	- y -	+ y +	195	ricc	vai	O L y	ASH	200	пли	цуз	vuı	LCu	205	VUL	Het	пеа	
	Leu	Dho		T.011				200					203				
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182 183	atg Met	ttg	ggt	aag	gtc Val		_		-	Thr	-			-	Asp		
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182 183 184 186 187 188 190 191 192 194 195 196 198	Met 1 gtg Val gcc Ala aca Thr	ttg Leu ggg Gly ctg Leu ggg Gly 50 tcc	ggt Gly tac Tyr gcg Ala 35 aat Asn	aag Lys att Ile 20 cat His ttg Leu	gtc Val 5 ccg Pro ggc Gly ccc Pro	ctc Leu gtc Val ggt Gly	Asp gtc Val cgg Arg tgc Cys 55 cca	Thr ggc Gly gtt Val 40 tct ser gct	Leu gcc Ala 25 ctg Leu ttc Phe	Thr 10 ccc Pro gag Glu tct ser	Cys cta Leu gac Asp atc Ile	Gly ggg Gly ggc Gly ttc Phe 60 gaa	Phe ggc Gly gtg Val 45 ctc Leu	Ala gct Ala 30 aac Asn ttg Leu	Asp 15 gcc Ala tat Tyr gct Ala aac	Leu agg Arg gca Ala ttg Leu gtg	96
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182 183 184 186 187 188 190 191 192 194 195 196 198 199 200	Met 1 gtg Val gcc Ala aca Thr ctg Leu 65	ttg Leu ggg Gly ctg Leu ggg Gly 50 tcc ser	ggt Gly tac Tyr gcg Ala 35 aat Asn tgt Cys	aag Lys att Ile 20 cat His ttg Leu	gtc Val 5 ccg Pro ggc Gly ccc Pro acc	ctc Leu gtc Val ggt Gly gtt Val 70	Asp gtc Val cgg Arg tgc Cys 55 cca Pro	Thr ggc Gly gtt Val 40 tct ser gct Ala	Leu gcc Ala 25 ctg Leu ttc Phe tcc Ser	Thr 10 ccc Pro gag Glu tct Ser gct Ala	Cys cta Leu gac Asp atc Ile tat Tyr 75	ggg Gly ggc Gly ttc Phe 60 gaa Glu	ggc Gly gtg Val 45 ctc Leu gtg Val	Ala gct Ala 30 aac Asn ttg Leu cgc Arg	Asp 15 gcc Ala tat Tyr gct Ala aac Asn	Leu agg Arg gca Ala ttg Leu gtg Val 80	96 144 192 240
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182 183 184 186 187 188 190 191 192 194 195 196 198 199 200 202 203	Met 1 gtg Val gcc Ala aca Thr ctg Leu 65	ttg Leu ggg Gly ctg Leu ggg Gly 50 tcc ser	ggt Gly tac Tyr gcg Ala 35 aat Asn tgt Cys	aag Lys att Ile 20 cat His ttg Leu ctg	gtc Val 5 ccg Pro ggc Gly ccc Pro acc Thr	ctc Leu gtc Val ggt Gly gtt Val 70 gtc	Asp gtc Val cgg Arg tgc Cys 55 cca Pro	Thr ggc Gly gtt Val 40 tct ser gct Ala aac	Leu gcc Ala 25 ctg Leu ttc Phe tcc ser gac	Thr 10 ccc Pro gag Glu tct ser gct Ala tgc Cys	Cys cta Leu gac Asp atc Ile tat Tyr 75 tcc	Gly ggg Gly ggc Gly ttc Phe 60 gaa Glu aac	Phe ggc Gly gtg Val 45 ctc Leu gtg Val	Ala gct Ala 30 aac Asn ttg Leu cgc Arg	Asp 15 gcc Ala tat Tyr gct Ala aac Asn att	Leu agg Arg gca Ala ttg Leu gtg Val 80 gtg	96 144 192 240
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182 183 184 186 187 188 190 191 192 194 195 196 198 200 202 203 204 206	Met 1 gtg Val gcc Ala aca Thr ctg Leu 65 tcc ser tat	ttg Leu ggg Gly ctg Leu ggg Gly 50 tcc Ser ggg Gly	ggt Gly tac Tyr gcg Ala 35 aat Asn tgt Cys atg Met	aag Lys att Ile 20 cat His ttg Leu ctg Leu tac Tyr	gtc Val 5 ccg Pro ggc Gly ccc Pro acc Thr cat His 85 gac	ctc Leu gtc Val ggt Gly gtt Val 70 gtc Val atg	Asp gtc Val cgg Arg tgc Cys 55 cca Pro acg Thr	Thr ggc Gly gtt Val 40 tct Ser gct Ala aac Asn atg	Leu gcc Ala 25 ctg Leu ttc Phe tcc Ser gac Asp cac	Thr 10 ccc Pro gag Glu tct ser gct Ala tgc Cys 90 acc	Cys cta Leu gac Asp atc Ile tat Tyr 75 tcc Ser ccc	Gly ggg Gly ttc Phe 60 gaa Glu aac Asn	Phe ggc Gly gtg Val 45 ctc Leu gtg Val tca ser tgc	Ala gct Ala 30 aac Asn ttg Leu cgc Arg agc ser	Asp 15 gcc Ala tat Tyr gct Ala aac Asn att Ile 95 ccc	Leu agg Arg gca Ala ttg Leu gtg Val 80 gtg Val tgc	96 144 192 240
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182 183 184 186 187 188 190 191 192 194 195 196 198 200 202 203 204 206 207 208	Met 1 gtg Val gcc Ala aca Thr ctg Leu 65 tcc Ser tat Tyr	ttg Leu ggg Gly ctg Leu ggg Gly 50 tcc Ser ggg Gly gag Glu	ggt Gly tac Tyr gcg Ala 35 aat Asn tgt Cys atg Met	aag Lys att Ile 20 cat His ttg Leu ctg Leu gcg Ala 100	gtc Val 5 ccg Pro ggc Gly ccc Pro acc Thr cat His gac Asp	ctc Leu gtc Val ggt Gly gtt Val 70 gtc Val atg Met	Asp gtc Val cgg Arg tgc Cys 55 cca Pro acg Thr atc Ile	Thr ggc Gly gtt Val 40 tct Ser gct Ala aac Asn atg Met	Leu gcc Ala 25 ctg Leu ttc Phe tcc Ser gac Asp cac His 105	Thr 10 ccc Pro gag Glu tct Ser gct Ala tgc Cys 90 acc Thr	Cys cta Leu gac Asp atc Ile tat Tyr 75 tcc Ser ccc Pro	Gly ggg Gly ttc Phe 60 gaa Glu aac Asn	Phe ggc Gly gtg Val 45 ctc Leu gtg Val tca Ser tgc Cys	Ala gct Ala 30 aac Asn ttg Leu cgc Arg agc Ser gtg Val 110	Asp 15 gcc Ala tat Tyr gct Ala aac Asn att Ile 95 ccc Pro	Leu agg Arg gca Ala ttg Leu gtg Val 80 gtg Val tgc Cys	96 144 192 240 288
182 183 184 186 187 188 190 191 192 194 195 196 198 200 202 203 204 206 207 208 210	Met 1 gtg Val gcc Ala aca Thr ctg Leu 65 tcc ser tat	ttg Leu ggg Gly ctg Leu ggg Gly 50 tcc Ser ggg Gly gag Glu cgg	ggt Gly tac Tyr gcg Ala 35 aat Asn tgt Cys atg Met gca Ala	aag Lys att Ile 20 cat His ttg Leu ctg Leu gcg Ala 100 aac	gtc Val 5 ccg Pro ggc Gly ccc Pro acc Thr cat His gac Asp	ctc Leu gtc Val ggt Gly gtt Val 70 gtc Val atg Met	Asp gtc Val cgg Arg tgc Cys 55 cca Pro acg Thr atc Ile	Thr ggc Gly gtt Val 40 tct Ser gct Ala aac Asn atg Met cgc	Leu gcc Ala 25 ctg Leu ttc Phe tcc Ser gac Asp cac His 105 tgc	Thr 10 ccc Pro gag Glu tct Ser gct Ala tgc Cys 90 acc Thr	Cys cta Leu gac Asp atc Ile tat Tyr 75 tcc Ser ccc Pro	Gly ggg Gly ggc Gly ttc Phe 60 gaa Glu aac Asn ggg Gly	Phe ggc Gly gtg Val 45 ctc Leu gtg Val tca Ser tgc Cys ctc	Ala gct Ala 30 aac Asn ttg Leu cgc Arg agc Ser gtg Val 110 acc	Asp 15 gcc Ala tat Tyr gct Ala aac Asn att 11e 95 ccc Pro	Leu agg Arg gca Ala ttg Leu gtg Val 80 gtg Val tgc Cys acg	96 144 192 240 288

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VERIFICATION SUMMARY

DATE: 08/08/2002

PATENT APPLICATION: US/09/995,791

TIME: 09:34:00

Input Set : A:\sequence listing.txt
Output Set: N:\CRF3\08082002\I995791.raw

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date